

ROCKFORD MUNICIPAL AIRPORT

This report describes how your pavement maintenance management program was developed. This program was developed as part of the Network Pavement Management Program project sponsored by the Idaho Transportation Department, Division of Aeronautics. The information and data contained in this report ensures you are in compliance with the requirements of Federal Aviation Administration (FAA) Grant Assurance Number 11 which states that any airport requesting federal funds for pavement improvement projects must have implemented a pavement maintenance management program (PMMP).

DATA COLLECTION

To determine how your pavements were constructed and their age, a records review was conducted. Figure RF-1 shows the records review results. This figure shows pavement boundaries, dimensions, pavement layer types, thicknesses and dates of construction. Table RF-1, provided in Appendix 1, contains the up-to-date cross-section information for each pavement section. The most recent construction date for each pavement can also be found in the Section Report in Appendix 2. Figure RF-1, Table RF-1, and the information contained in Appendices 1 and 2 ensure that your airport complies with the “pavement inventory” requirement of FAA’s PMMP guidelines.

The pavements at your airport were divided into branches, sections and sample units in accordance with the methodology outlined in the current editions of FAA Advisory Circular AC:150/5380-6, *Guidelines and Procedures for Maintenance of Airport Pavements* and ASTM D5430, *Standard Test Method for Airport Condition Index Surveys*. The branches, sections and sample units established at your airport are shown in Figure RF-2. A Branch Condition Report showing all branches, their associated areas, and area-weighted condition is provided in Appendix 2. Additionally, the Appendix 2 Section Condition Report provides information that the Micro PAVER pavement management software uses to define each branch and section.

Using the branch, section and sample unit divisions established, a visual condition survey was conducted at Rockford Municipal Airport on November 03, 2006. During the inspection pavement defects were identified and measured in accordance with the methodology outlined in FAA AC:150/5380-6 and ASTM D5430. Our inspection ensures your airport complies with the “detailed inspection” requirement of FAA’s PMMP guidelines. After collection, the data were entered into the Micro PAVER software for analysis. These data are reproduced in the Re-Inspection Report attached in Appendix 2. Photographs of typical distresses observed during the inspections are provided in Appendix 3.

Figure RF-1. Airport Layout, Pavement and Dimensions Cross-Sections.
Rockford Municipal Airport

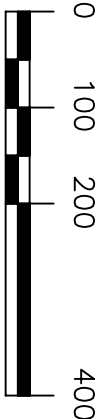
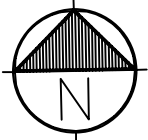
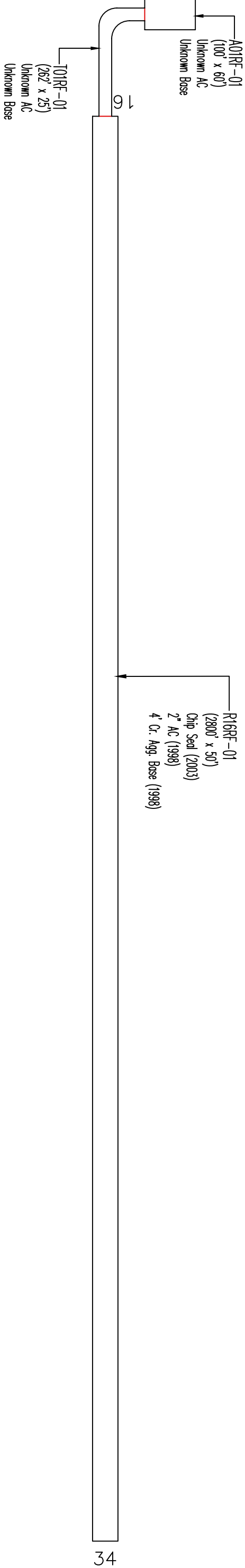
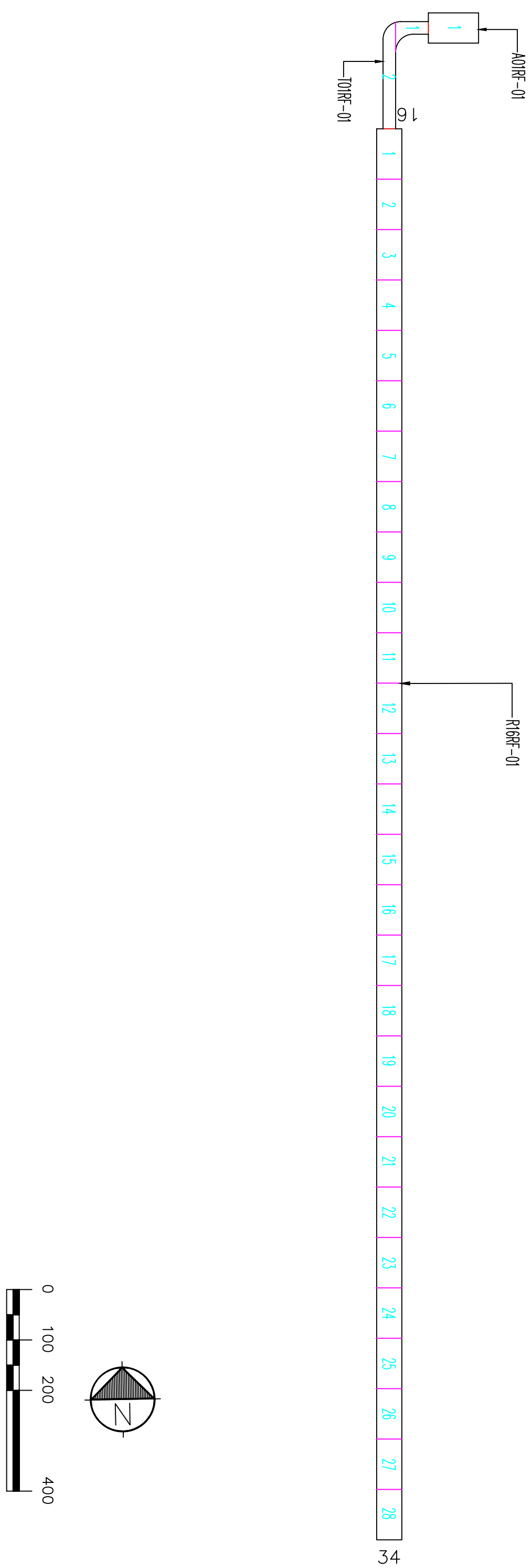


Figure RF-2. Pavement Branch, Section and Sample Unit Layout.
Rockford Municipal Airport



The Micro PAVER database updated during this project ensures your airport complies with the “record keeping and information retrieval” requirements of FAA’s PMMP guidelines.

RESULTS

Using the data collected during the visual inspection, the Micro PAVER software calculated a Pavement Condition Index (PCI) for each pavement section inspected by averaging the PCIs for inspected sample units. Using each section’s PCI, a Pavement Condition Rating (PCR) was assigned. The PCIs and associated PCRs from this inspection are shown in Table RF-2. This table also contains projected PCIs for 2011 and 2016 based on pavement deterioration models developed by Micro PAVER using the inspection data from pavements in Idaho having the same surface e types. The Branch Condition Report in Appendix 2 summarizes current pavement condition by branch while the Section Condition Report in Appendix 2 lists pavement condition by section. The current PCR is shown graphically in Figure RF-3.

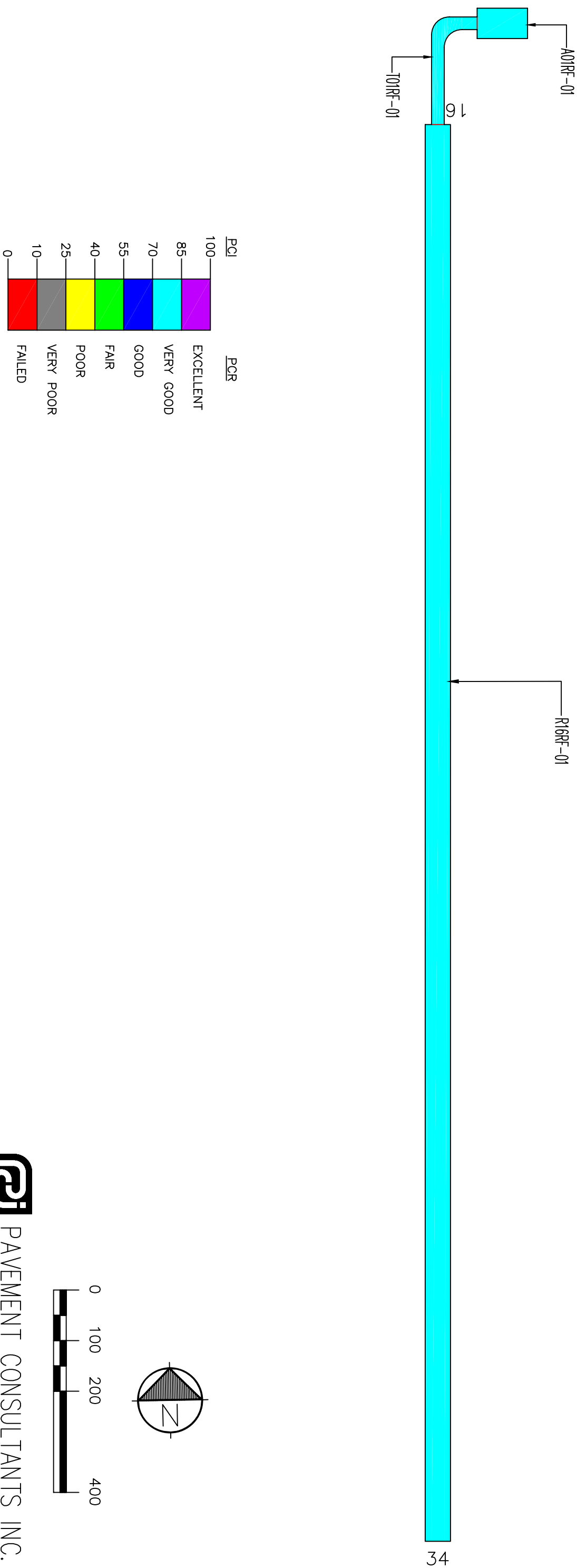
Table RF-2. Present and Future Pavement Condition Indices.

Branch	Section	2006		2011		2016	
		PCI	PCR	PCI	PCR	PCI	PCR
A01RF	01	80	Very Good	67	Good	56	Good
R16RF	01	80	Very Good	72	Very Good	56	Good
T01RF	01	80	Very Good	69	Good	58	Good

Section PCIs at the airport range from a low of 80 (a PCR of “Very Good”) to a high of 80 (a PCR of “Very Good”). The area-weighted average PCI for all airport pavements is 80 corresponding to an overall PCR of “Very Good”. Figure RF-4 shows how much pavement area is associated with each Pavement Condition Rating category and also shows pavement condition distribution for the inspection conducted in 2006. A graphical representation of the projected PCRs presented in Table RF-2 is shown in Figure RF-5.

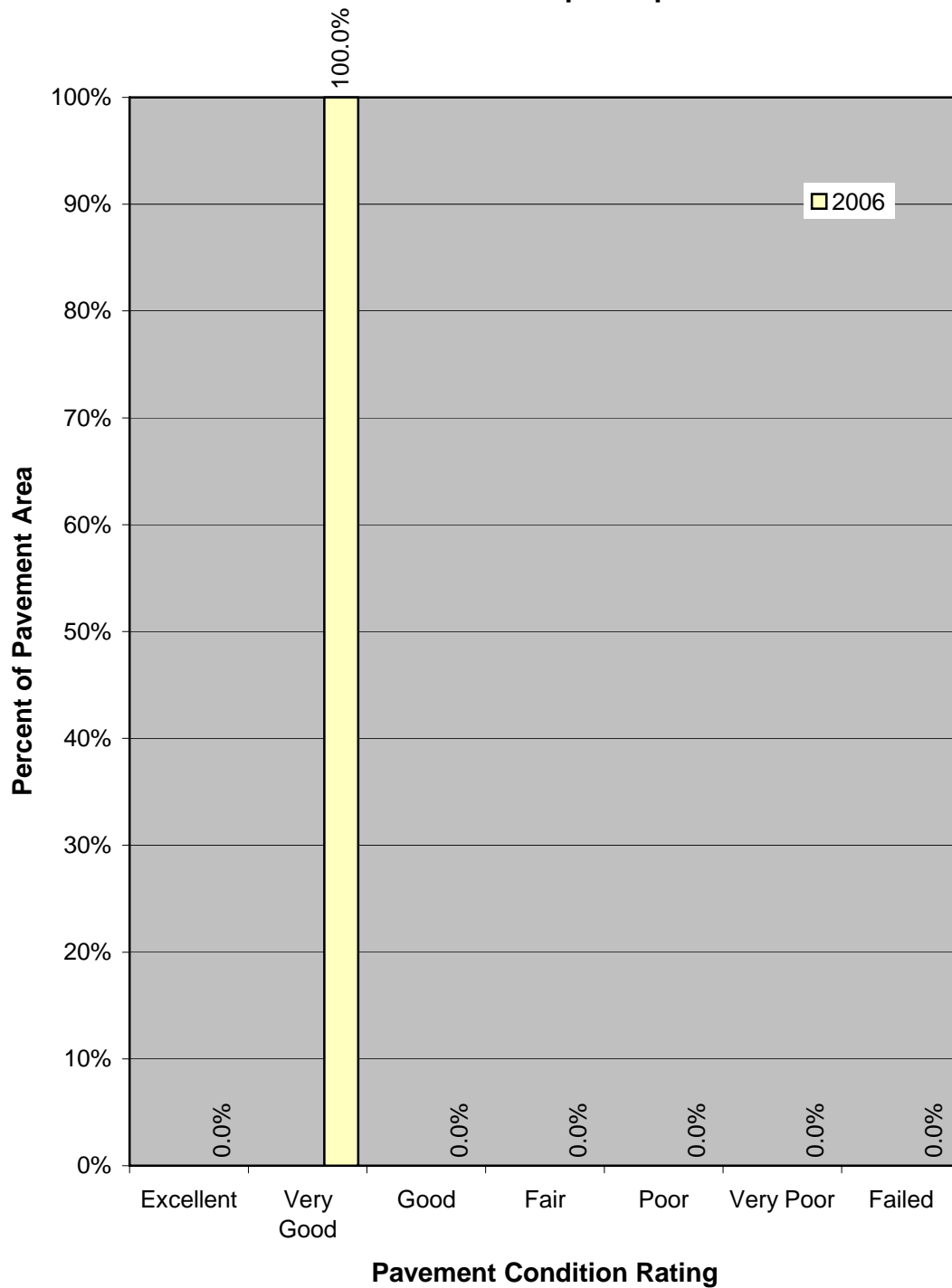
The primary distress observed during the inspection was weathering/raveling.

Figure RF-3. Pavement Condition in 2006.
Rockford Municipal Airport

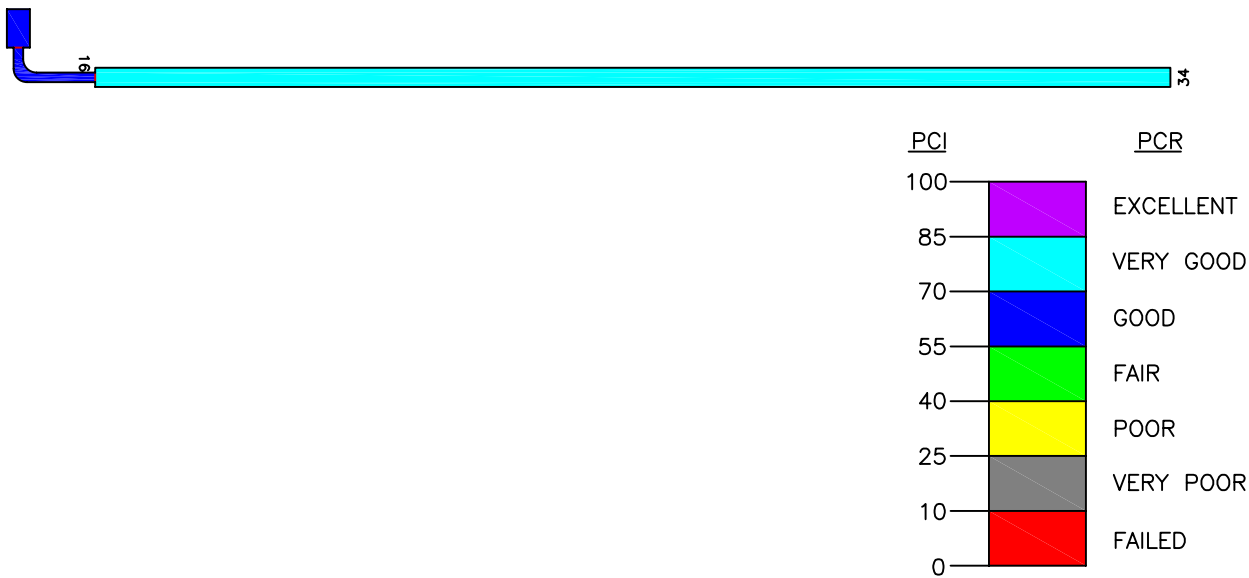


Drawing Date: November 2006

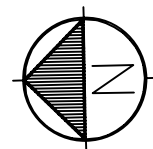
**Figure RF-4. Distribution of Pavement Condition
Rockford Municipal Airport**



Predicted Condition in 2011.



Predicted Condition in 2016.



PAVEMENT CONSULTANTS INC.

Drawing Date: November 2006

Figure RF-5. Future Pavement Condition.

RECOMMENDATIONS

Data collected during the visual condition survey were used by the Micro PAVER software to generate the Network Maintenance Report contained in Appendix 4. This report identifies, for each pavement section, the recommended localized maintenance activities that should be completed to repair the defects observed during the visual inspection. The repair quantities identified in the report were extrapolated to cover the entire pavement section, based on the inspected sample units. If the repair activities identified are completed, the pavement deterioration rate will slow.

The localized maintenance activities to be applied are selected by the Micro PAVER software based on the Maintenance & Repair (M&R) policy established for the Idaho airport system. The report results indicate that, over the entire airport, no localized maintenance is needed.

The Micro PAVER software also can identify and schedule recommended global (applied over an entire section) maintenance activities such as fog seals, slurry seals and other surface treatments, as well as major rehabilitation activities such as asphalt concrete overlays and complete reconstruction. To determine when a pavement section requires global maintenance or rehabilitation, Micro PAVER uses the pavement deterioration models developed during this project. These models are used to estimate future pavement condition and to schedule global maintenance and rehabilitation recommendations based on a trigger PCI.

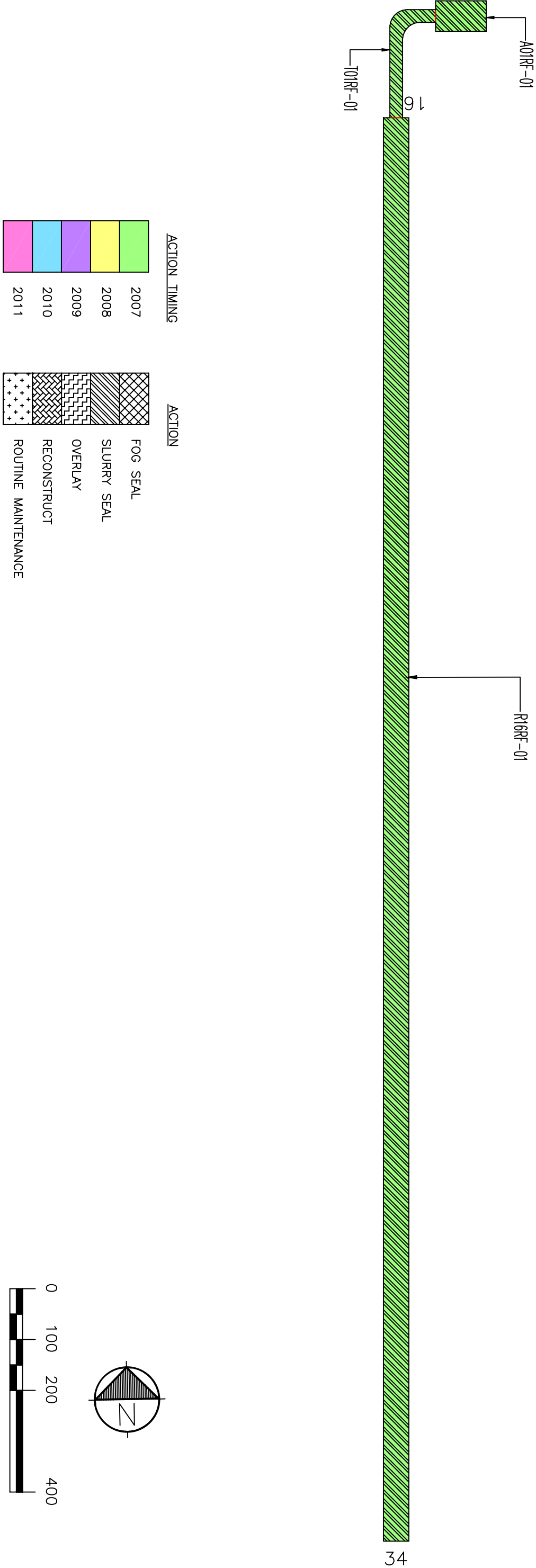
During this project a 5-year program outlining recommended global maintenance and rehabilitation was developed. The program begins in 2007. These recommendations are presented in Table RF-3, which identifies the pavement section requiring rehabilitation, the year the action should be completed, the type of action, and an associated cost. This information is also presented graphically in Figure RF-6.

Table RF-3. Five-Year Global Maintenance and Rehabilitation Plan.

Year	Branch	Section	Action	Area (sf)	Unit Cost (\$/sf)	Total Cost (\$)
2007	A01RF	01	Slurry Seal	6,000	\$0.21	\$1,260
	R16RF	01	Slurry Seal	140,000	\$0.21	\$29,400
	T01RF	01	Slurry Seal	6,937	\$0.21	\$1,457
2007 Total						\$32,117
TOTAL						\$32,117

If the global maintenance or rehabilitation activities recommended in Table RF-3 are not completed, the localized maintenance activities identified in the Network Maintenance Report (Appendix 4) for that section should be completed. Additionally, for those sections not listed in Table RF-3 as requiring global maintenance or rehabilitation, the

Figure RF-6. Five-Year Pavement Management Plan.
Rockford Municipal Airport



Drawing Date: November 2006

localized maintenance activities outlined in the Network Maintenance Report should be completed. By completing the localized maintenance activities, pavement condition is improved, life is extended, deterioration is slowed and the length of time until major repair or rehabilitation is required is increased.

INSPECTION SCHEDULE

To comply with the inspection schedule requirement of FAA Grant Assurance Number 11, a detailed visual inspection should be conducted every three (3) years using the methodology in FAA AC:150/5380-6 and ASTM D5430. The next scheduled detailed visual inspection should take place during 2009.

In addition, as part of the FAA-mandated pavement maintenance management program, a drive-by inspection must be conducted monthly to detect unforeseen or abrupt changes in pavement condition that have occurred since the last monthly inspection. Additionally, any maintenance activities completed during the previous month should be noted. The results of each drive-by inspection should be recorded and kept on file for five (5) years.

This inspection can easily be accomplished by driving your airport and recording your observations on the "Monthly Drive-By Inspection Form" provided as Figure RF-7. Each drive-by inspection should note the date of the inspection, any change in pavement condition, and an indication of any maintenance performed since the last drive-by inspection. A copy of each drive-by inspection report should be sent to Mr. William P. Statham at the Idaho Division of Aeronautics, P.O. Box 7129, Boise, ID 83709.

RECORD KEEPING

As part of the FAA-mandated pavement maintenance management program, you must record and keep on file for a minimum of five (5) years, complete information about all detailed pavement inspections and maintenance performed. The types of distress, their locations, and remedial actions, scheduled or performed, must be documented. The minimum information to be recorded is:

- Inspection date
- Location of pavement distress
- Distress types observed
- Type of maintenance scheduled or performed
- Date maintenance was performed

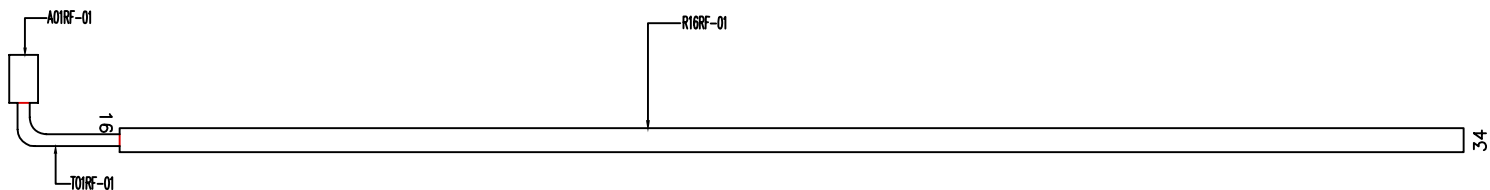
It would be useful to maintain documentation as to the type of maintenance completed

such as engineering reports, drawings and specifications.

Note that you may use any form or record keeping you deem appropriate so long as the information and records produced by the pavement survey can be retrieved as necessary for any reports required by the FAA.

This report fulfills FAA's record keeping requirements. Additionally, this report and any subsequent information compiled by you will form the basis of the next detailed inspection and evaluation.

Figure RF-7. Monthly Drive-By Inspection Form Rockford Municipal Airport



Inspection Date: _____

Inspected By: _____

Branch	Section	Maintenance Performed Since Last Inspection

Note any changed condition on drawing

Send a copy of the inspection report to:

Willaims P. Statham, Idaho Division of Aeronautics

P.O. Box 7129 / Boise, ID 83707-1129

Fax: (208) 334-8789

ROCKFORD RF-1. PAVEMENT HISTORY REPORT

Airport Name: Rockford
Date Prepared: 01 February 2007

Page 1 of 1

Feature Number	Soil Class	Subgrade	CBR	Subgrade Prep.	Frost Course	Subbase Course	Base Course	Surface Course	Overlay Course	Surface Treatment	Crack Seal
		Class									
	Project Number										
R16RF01						Unknown	4" Cr. Agg.	2" AC			
	IAAP-01			1998							
R16RF01									Chip Seal		
	IAAP-01			2003							
T01RF01						Unknown	Unknown	Unknown			
	IAAP-01			Unknown							
A01RF01						Unknown	Unknown	Unknown			
	IAAP-01			Unknown							

Date: 5 /18/2007

Branch Condition Report

Pavement Database: NetworkID: ROCKFORD

Branch ID	Number of Sections	Sum Section Length (Ft)	Avg Section Width (Ft)	True Area (SqFt)	Use	Average PCI	PCI Standard Deviation	Weighted Average PCI
A01RF (Apron 01 Rockford)	1	100.00	60.00	6,000.00	APRON	80.00	0.00	80.00
R16RF (Runway 16 Rockford)	1	2,800.00	50.00	140,000.00	RUNWAY	80.00	0.00	80.00
T01RF (Taxiway 01 Rockford)	1	262.00	25.00	6,937.00	TAXIWAY	80.00	0.00	80.00

Date: 5 /18/2007

Branch Condition Report

2 of 2

Pavement Database:

Use Category	Number of Sections	Total Area (SqFt)	Arithmetic Average PCI	Average PCI STD.	Weighted Average PCI
APRON	1	6,000.00	80.00	0.00	80.00
RUNWAY	1	140,000.00	80.00	0.00	80.00
TAXIWAY	1	6,937.00	80.00	0.00	80.00
All	3	152,937.00	80.00	0.00	80.00

Date: 5 /18/2007

Section Condition Report

1 of 2

Pavement Database: NetworkID: ROCKFORD

Branch ID	Section ID	Last Const. Date	Surface	Use	Rank	Lanes	True Area (SqFt)	Last Inspection Date	Age At Inspection	PCI
A01RF (Apron 01 Rockford)	01	01/01/1901	AC	APRON	P	0	6,000.00	11/03/2006	105	80.00
R16RF (Runway 16 Rockford)	01	10/05/2003	AC	RUNWAY	P	0	140,000.00	11/03/2006	3	80.00
T01RF (Taxiway 01 Rockford)	01	01/01/1901	AC	TAXIWAY	P	0	6,937.00	11/03/2006	105	80.00

Date: 5 /18/2007

Section Condition Report

2 of 2

Pavement Database:

Age Category	Average Age At Inspection	Total Area (SqFt)	Number of Sections	Arithmetic Average PCI	PCI Standard Deviation	Weighted Average PCI
03-05	3.00	140,000.00	1	80.00	0.00	80.00
over 40	105.00	12,937.00	2	80.00	0.00	80.00
All	71.00	152,937.00	3	80.00	0.00	80.00

Re-inspection Report

idaho2006
Report Generated Date: 5/18/2007
Site Name:

Network:	ROCKFORD	Name:	ROCKFORD MUNICIPAL AIRPORT			
Branch:	A01RF	Name:	Apron 01 Rockford	Use:	APRON	Area: 6,000.00SqFt
Section:	01	of	1	From:	Taxiway 01	To: East End
Surface:	AC	Family:	Idaho AC Aprons	Zone:		Last Const.: 1/1/1901
Area:	6,000.00SqFt	Length:	100.00Ft	Width:	60.00Ft	Category: Rank: P
Shoulder:		Street Type:	Grade: 0.00	Lanes:	0	
Section Comments:						

Last Insp. Date11/3/2006 Total Samples: 1 Surveyed: 1
Conditions: PCI:80.00 |

Sample Number:	01	Type:	R	Area:	6,000.00SqFt	PCI = 80
52	WEATHERING/RAVELING			L	2,999.98 SqFt	

Re-inspection Report

idaho2006
Report Generated Date: 5/18/2007
Site Name:

Network:	ROCKFORD	Name:	ROCKFORD MUNICIPAL AIRPORT			
Branch:	R16RF	Name:	Runway 16 Rockford	Use:	RUNWAY	Area: 140,000.00SqFt
Section:	01	of	1	From:	Taxiway 01	To: Runway 34 End
Surface:	AC	Family:	Idaho AC Runways	Zone:		Last Const.: 10/5/2003
Area:	140,000.00SqFt	Length:	2,800.00Ft	Width:	50.00Ft	Category: Rank: P
Shoulder:		Street Type:	Grade: 0.00	Lanes:	0	
Section Comments:						

Last Insp. Date11/3/2006 Total Samples: 28 Surveyed: 5
Conditions: PCI:80.00 |

Sample Number:	01	Type:	R	Area:	5,000.00SqFt	PCI = 80
52	WEATHERING/RAVELING			L	2,499.98 SqFt	
Sample Number:	06	Type:	R	Area:	5,000.00SqFt	PCI = 80
52	WEATHERING/RAVELING			L	2,499.98 SqFt	
Sample Number:	12	Type:	R	Area:	5,000.00SqFt	PCI = 80
52	WEATHERING/RAVELING			L	2,499.98 SqFt	
Sample Number:	18	Type:	R	Area:	5,000.00SqFt	PCI = 80
52	WEATHERING/RAVELING			L	2,499.98 SqFt	
Sample Number:	24	Type:	R	Area:	5,000.00SqFt	PCI = 80
52	WEATHERING/RAVELING			L	2,499.98 SqFt	

Re-inspection Report

idaho2006
Report Generated Date: 5/18/2007
Site Name:

Network:	ROCKFORD	Name:	ROCKFORD MUNICIPAL AIRPORT			
Branch:	T01RF	Name:	Taxiway 01 Rockford	Use:	TAXIWAY	Area: 6,937.00SqFt
Section:	01	of	1	From:	Apron 01	To: Runway 16
Surface:	AC	Family:	Idaho AC Taxiways	Zone:		Last Const.: 1/1/1901
Area:	6,937.00SqFt	Length:	262.00Ft	Width:	25.00Ft	Category: Rank: P
Shoulder:		Street Type:	Grade: 0.00	Lanes:	0	
Section Comments:						

Last Insp. Date11/3/2006 Total Samples: 2 Surveyed: 2
Conditions: PCI:80.00 |

Sample Number:	01	Type:	R	Area:	1,883.00SqFt	PCI = 80
52	WEATHERING/RAVELING			L	940.99 SqFt	
Sample Number:	02	Type:	R	Area:	5,054.00SqFt	PCI = 80
52	WEATHERING/RAVELING			L	2,526.98 SqFt	



Section: R16RF-01
Weathering/ Raveling

NETWORK MAINTENANCE REPORT

ROCKFORD MUNICIPAL AIRPORT

Network	Branch	Section	Distress	Severity	Distress Quantity	Units	Action	Maint. Quantity	Units	Unit Cost	Total Cost
ROCKFORD	A01RF	1	WEATH/RAVEL	L	3,000.00	SQFT	No Localized M & R	3,000.00	SqFt	\$0.00	\$0.00
Total											\$0.00
ROCKFORD	R16RF	1	WEATH/RAVEL	L	70,000.00	SQFT	No Localized M & R	69,999.40	SqFt	\$0.00	\$0.00
										Total	\$0.00
ROCKFORD	T01RF	1	WEATH/RAVEL	L	3,468.00	SQFT	No Localized M & R	3,468.00	SqFt	\$0.00	\$0.00
Total											\$0.00
TOTAL											\$0.00